

Warm-up!

Graph:

$$f(x) = x^2 + 2x - 3$$

$$V(-1, -4)$$

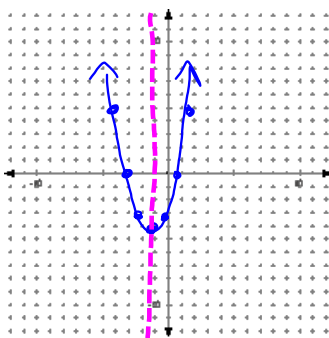
$$\text{a.o.s. } x = -1$$

$$\text{y-int } (0, -3)$$

$$\text{mirrored pt } (-2, -3)$$

$$\text{another pt } (-3, 0)$$

$$\text{mirrored pt } (1, 0)$$



x-intercepts

## Solving Quadratic Equations by:

6.2 graphing  
6.3 factoring

ex 1:

Solve by factoring

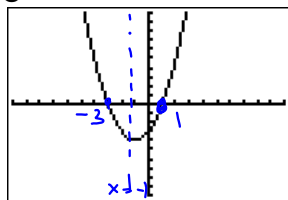
$$x^2 + 2x - 3 = 0$$

$$(x+3)(x-1) = 0$$

$$x+3=0 \quad x-1=0$$

$$x=-3 \quad x=1$$

$$\{-3, 1\}$$



Roots  
equations

Zeros  
functions

x-intercepts  
graphs of functions

ex 2:

Solve

$$-x^2 - 6x - 9 = 0$$

$$x^2 + 6x + 9 = 0$$

$$(x+3)(x+3) = 0$$

$$(x+3)^2 = 0$$

$$x = -3$$



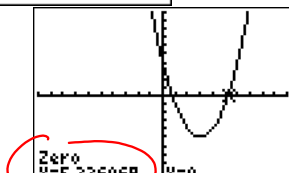
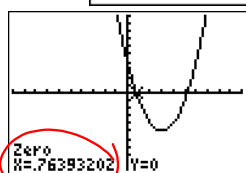
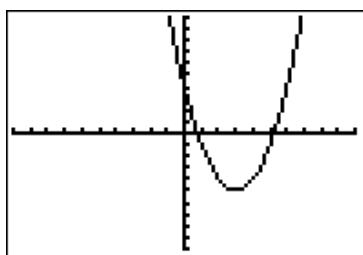
$$\frac{9}{3 \times 3}$$

ex 3:

Solve

$$x^2 - 6x + 4 = 0$$

$$\frac{4}{6}$$

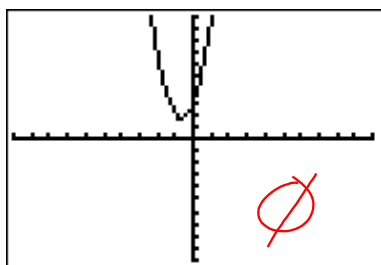


ex 4:

Solve


$$3x^2 + 4x + 3 = 0$$


$$\frac{9}{4}$$



No Sol'n

Two Real Solutions 

One Real Solution 

No Real Solution 

$$x^2 + 2x - 3 = 1$$

HW

p298 32, 36 (Use calc)

p304 14-23, 32